

**REPLIES TO PRE BID QUERIES LOT-1 DATED -23.7.21**

**NIT NO : PNMM/PC-183/E-4009/NCB**

**SUB : COAL/PETCOKE/LIMESTONE HANDLING FROM RAILWAYS LIDING TO STORAGE YARD ON LSTK BASIS**

| S.NO.                   | SECTION NO.       | PAGE NO. | CLAUSE NO.                                 | SUBJECT   | PRE BID CLARIFICATIONS   | PDIL REPLY  |
|-------------------------|-------------------|----------|--|---|--|---|
| <b>II Technical NIT</b> |                   |          |  |   |  |   |
| 1                       | SECTION VI-2.0    | 11       | SCOPE OF WORK                              | 1.0 CONTRACTOR'S GENERAL SCOPE OF WORK<br>Cooling water Scope in Contractor scope   | Cooling water is Not applicable since all equipment's are Air Cooled Only. Please confirm.   | Raw material and utility shall be made available to the contractor/bidder at only one point of battery limit of wagon tippler complex ,track hopper building, transfer towers; further distribution to the required location considering attached piping specification shall be under scope of contractor/bidder if required. |
| 2                       | SECTION VI-2.0    | 60       | DESIGN PHILOSOPHY – ROTATING EQUIPMENTS    | DESIGN PHILOSOPHY FOR MACHINERY   | We Shall follow the Specification for our related Equipment's only   | For all rotating equipment, design philosophy for Machinery equipment shall be followed.  |
| 3                       | SECTION VI– 3.1.3 | 78       | DESIGN PHILOSOPHY-STATIC EQUIPMENT         | DESIGN PHILOSOPHY FOR STATIC  | We Shall follow the Specification for our related Equipment's only   | As per NIT  |
| 4                       | SECTION VI–3.2    | 324      | CONTRACTOR SCOPE OF WORK - INSTRUMENTATION | 3.8 The Complete DCS/PLC control system i.e. Marshalling panels, Cabinets (System, I/O, PDB, IRP etc.) HMI/Consoles, printers, furniture etc. for the above package shall be housed in the new air conditioned control room for this package.<br>Construction of Substation cum Control room with HVAC (Control room) shall be in bidder scope.   | Please provide the location Substation cum Control room and also confirm the type of HVAC(Dry/Wet Type)  | Location of the "Substation cum Control room shall be near Wagon tippler. Location marking to be proposed by the bidder within the designated battery limit of the package . The same to be reviewed and finalised by TFL/PDIL during detail engineering.HVAC type is not in scope of Instrumentation discipline.             |
| 5                       | SECTION VI–3.2    | 325      | CONTRACTOR SCOPE OF WORK - INSTRUMENTATION | 3.13 1 no. OS will be placed in the COAL GASIFICATION Control room  | Please confirm the purpose of locating the OS in COAL GASIFICATION Control room and whether it is Engineering work station/Operating Work Station                                | Purpose of locating the OS in coal Gasification (CG) control room is for viewing Purpose only.This shall be Operator work station   |
| 6                       | SECTION VI–3.2    | 325      | CONTRACTOR SCOPE OF WORK - INSTRUMENTATION | 3.16 Package Unit PLCs:<br>Bidder to provide PLC with redundancy at all levels and with latest model. It shall have provision to communicate with main DCS system (Coal gasification control room) through Modbus protocol/ OFC in redundant mode. Overall plot plan elsewhere attached with Tender to be referred by Bidder for determining distances and proposing cable routings.<br>Main programmable Logic controller based system for the package including marshalling cabinets, relay cabinets, MCC Interface cabinets, power supply distribution cabinets, instrument isolator, alarm cards, terminals, relays with accessories duly mounted, wired & tested to meet specified requirements. | 1. Normally there is no redundancy for Standalone PLC's like Wagon Tippler & Paddle Feeder. Please Confirm.<br>2. Please provide the Details for Existing DCS like Model & Make. | 1.) Redundancy shall be required as per NIT requirement.<br>2.)Existing model shall be provided later ,during detail engineering  |
| 7                       | SECTION VI–3.2    | 328      | CONTRACTOR SCOPE OF WORK - INSTRUMENTATION | 3.35 Auto start for pumps must be designed using 1oo2 philosophy  | Please give Clarify on 1oo2 philosophy   | One-out-of-two voting (1oo2) employs two devices instead of one. In this arrangement of two device only one vote to shutdown from either one of the two devices will cause the shutdown action to occur.  |
| 8                       | SECTION VI–3.2    | 328      | CONTRACTOR SCOPE OF WORK - INSTRUMENTATION | 3.37 Local indicators, start /stop switches, emergency stop switches shall also be provided near package units/rotating machines where local startup of the equipment is advisable.   | We will provide the Same for LT Motors and Emergency Stop Provided for HT Motors. Please Confirm   | kindly provide as per NIT requirement   |
| 9                       | SECTION VI–3.2    | 328      | CONTRACTOR SCOPE OF WORK - INSTRUMENTATION | 3.39 Trip solenoids shall be dual redundant, and configured and hooked up properly in such a way that failure of one solenoid doesn't initiate a false trip. Trip solenoids shall be normally in energized condition and shall be de-energized to initiate trip.  | Please confirm where it is applicable.   | The tender has been prepared as per general tender type. What ever type of Instrument are not applicable shall not be used. Remaining tender terms prevails.  |
| 10                      | SECTION VI–3.2    | 328      | CONTRACTOR SCOPE OF WORK - INSTRUMENTATION | 3.40 All trip interlocks must be designed on 2oo3 philosophy.   | Please give Clarify on 2oo3 philosophy.  | Two-out-of-three voting (2oo3) employs three devices instead of one or two. In this arrangement, if any two instruments vote to cause a shutdown, a shutdown will occur   |

|    |                |     |  |   |   |   |
|----|----------------|-----|--|---|---|---|
| 11 | SECTION VI-3.2 | 328 | CONTRACTOR SCOPE OF WORK - INSTRUMENTATION | 3.43 Air fail to open, Close or Hold of any control valve shall be as per Licensors document, to take care of process, plant and human safety. For Piston actuators necessary air volume chambers and lock up relay shall be provided to achieve the fail-safe condition.   | Please confirm where it is applicable.  | The tender has been prepared as per general tender type. What ever type of Instrument are not applicable shall not be used. Remaining tender terms prevails.  |
| 12 | SECTION VI-3.2 | 329 | CONTRACTOR SCOPE OF WORK - INSTRUMENTATION | 3.51 All line mounted instruments like in-line SOVs, Magnetic flow meter, Rotameter, Mass flow meters etc shall be provided with block & bypass arrangement, with their indications in system as per requirement, which will be discussed in detailed engineering.  | Please confirm where it is applicable.  | The tender has been prepared as per general tender type. What ever type of Instrument are not applicable shall not be used. Remaining tender terms prevails.  |
| 13 | SECTION VI-3.2 | 329 | CONTRACTOR SCOPE OF WORK - INSTRUMENTATION | 3.52 Separate Sample handling system shall be used for each analyzer. Multi-Channel with stream selector can be used, provided the total system including sample handling system shall be imported. Necessary sequence shall be inbuilt in the analyzer for draining the condensate.  | Sampling System is Not in HAMTEK Scope in this Package. So, please remove this Point.   | The tender has been prepared as per general tender type. What ever type of Instrument are not applicable shall not be used. Remaining tender terms prevails.  |
| 14 | SECTION VI-3.2 | 329 | CONTRACTOR SCOPE OF WORK - INSTRUMENTATION | 3.55 System / Marshalling/ Packages cabinet size shall be 2100 (H) X 1200 / 800 (W) X 800 (D) Rittal make.  | This Panel size is applicable for Control room Panel and its not applicable for standalone local panels. Please confirm.                              | This Panel size is applicable for Control room Panel  |
| 15 | SECTION VI-3.2 | 330 | CONTRACTOR SCOPE OF WORK - INSTRUMENTATION | 3.56 Separate Tapping shall be used for each instrument coming for trip, control & monitoring, local display. Not more than 3 set of taps are allowed.<br>3.57 Smart positioner shall be considered for all Control Valves. For high temperature services (Above 200 Deg C) remote mounting shall be used for the smart positioner.<br>3.58 Positioner shall be of valve OEM or as per approved vendor list.<br>3.59 For all Local panels' rain cover to be provided. The gasket of local panels must be acid resistant preferably Silicone/EPDM or better which will be discussed during detailed engineering.<br>3.60 For Analyzers separate feeders to be directly taken from UPS. No sub-branching is allowed at any place. | These points are not related to CHP Package. Please confirm   | The tender has been prepared as per general tender type. What ever type of Instrument are not applicable shall not be used. Remaining tender terms prevails.  |
| 16 | SECTION VI-3.2 | 330 | CONTRACTOR SCOPE OF WORK - INSTRUMENTATION | 3.62 Fire Alarm system shall be interfaced with the Central fire station, all the necessary communication up to the central fire system PLC shall be in bidder's scope. Including supply of OFC and network switches etc. Any alarm generated in ROMCOAL / PETCOKE / LIMESTONE HANDLING units shall be displayed at Fire Control Room. Repeater panel at central fire control station shall be in bidder scope. For more details regarding Fire alarm system kindly refer Electrical section of Tender. Overall plot plan elsewhere attached with Tender to be referred by Bidder for determining distances and proposing cable routings.   | Please provide the location of Central Fire System and the Central Fire station communication details along with make , model of Communication module | Refer area plot plan attached with the tender. For more details regarding Fire alarm system kindly refer Electrical section of Tender. Instrumentation discipline donot cater to specifics of Fire alarm panel. |
| 17 | SECTION VI-3.2 | 342 | CONTRACTOR SCOPE OF WORK - INSTRUMENTATION | 7.14 Blocked Chutes :<br>All chutes shall include a blocked chute detection device with a minimum of two (2) different devices installed to ensure the condition is detected. A blocked chute condition shall trip the conveyor. The blocked chute detection devices used depend upon the chute type and material characteristics being handled and include:  | As per the recommendations blocked chute detection device Min. One Number is sufficient to ensure the condition is Detected. Please Confirm.          | kindly provide as per NIT requirement   |
| 18 | SECTION VI-3.2 | 342 | CONTRACTOR SCOPE OF WORK - INSTRUMENTATION | 7.11 Load cell with Digital Weight Indicator  | Accuracy to be confirm  | 0.015% of FS  |

|    |                 |     |  |   |  |   |
|----|-----------------|-----|--|---|--|---|
| 19 | SECTION VI-3.2  | 354 | CONTRACTOR SCOPE OF WORK - INSTRUMENTATION | Digital Output 16 Channels  | Please confirm once again whether DO 16 Channels or 32 Channels? Since as per tender All DI Cards 32 Channels.   | Digital Output shall be of 16 Channels. Kindly provide as per NIT requirement.  |
| 20 | SECTION:VI- 3.3 | 407 | DESIGN PHILOSOPHY – ELECTRICAL             | 1.2.2 - 11 KV ICOG Panel, as required   | As per the tender Tapping from 2 Nos 11KV Feeders, but confirm where its applicable.   | Tapping from 2 Nos 11KV Feeders from OUSS (Offsite & Utilities Substation). Please refer plot plan for OUSS location. |
| 21 | SECTION:VI- 3.3 | 409 | DESIGN PHILOSOPHY – ELECTRICAL             | Normal power supply shall be tapped from 2 Nos. 11KV feeders at Owner's Offsite & Utilities Substation (OUSS) and further distribution shall be in LSTK Contractor's scope.   | Please Specify the OUSS Location and its cable routing in plot plan  | Please refer plot plan for OUSS location.   |
|    |                 |     |  | Emergency power supply shall be tapped from 1 Nos. 11KV feeders (Emergency Bus) at Owner's Offsite & Utilities Substation (OUSS) and further distribution shall be in LSTK  | Please specify the emergency loads list to be considered clearly.  | Bidder shall indicate the details of Normal Loads and Emergency Loads in Technical Bid, as per NIT requirement.       |
|    |                 |     |  | Bidder shall indicate the details of Normal Loads and Emergency Loads in the bid. Tentative Location of Offsite & Utilities Substation (OUSS) is marked in Plot plan.   | Please Specify the OUSS Location and its cable routing in plot plan  | Please refer plot plan for OUSS location.   |
| 22 | SECTION:VI- 3.3 | 410 | DESIGN PHILOSOPHY – ELECTRICAL             | 1.8 1 No. 415 V Feeder (400 A) at Existing Substation near 132 KV Switchyard shall be made available by Owner for Construction Power. Tapping of Construction Power (on chargeable basis) from this feeder (including supply & erection of all required materials like structural supports for cable tray, cable trays, power cables, control cables, protection & metering, cable termination etc. as well as underground cabling work) and further distribution shall be in LSTK Contractor's scope | 400Amps power feeder is not sufficient for erection Activates. As per our site requirement we required minimum 630Amps Power supply. So please confirm and provide us the same.                    | Noted. However Bidder shall provide the Monthwise requirement of construction power.                                  |
| 23 | SECTION:VI- 3.3 | 411 | DESIGN PHILOSOPHY – ELECTRICAL             | 1.11 The interface of electrical equipment's with ECMS / DCS shall be through IEC 61850 Meters, Motor Protection Relay (MPR) and other equipment, Ethernet communication module shall also be used. 100% redundancy shall be provided for communication i.e. the relay should have minimum 2 Nos. IEC-61850 communication port in addition to Front Port.   | Please confirm the MFM With IEC 61850 Protocol is required for all motor feeders and incomer, buscouplers (OR) Incomer and bus coupler only.   | As per NIT.   |
| 24 | SECTION:VI- 3.3 | 418 | DESIGN PHILOSOPHY – ELECTRICAL             | 2.6 Minimum ambient Temperature 1 C.deg   | Please check and once again confirm the same.  | As per NIT.   |
| 25 | SECTION:VI- 3.3 | 421 | DESIGN PHILOSOPHY – ELECTRICAL             | 4.1 Voltage Ratings<br>- Motors above 1000 KW<br>- Motors above 150 KW up to 1000KW<br>- Motors up to 150 KW 3.3 KV, 3 Ph AC  | Please check once again and confirm whether it is applicable for Utilities also like Dust suppression System, Fire Fighting System   | As per NIT.   |
| 26 | SECTION:VI- 3.3 | 423 | DESIGN PHILOSOPHY – ELECTRICAL             | 5.1.14 Separate MCCs be provided for Air-conditioning and Ventilation systems.  | As per our system requirement Air conditioning & Ventilation System having the total feeders are 2 to 3 Nos only and for this small qty separate MCC not suggestable, so Please check and Confirm. | As per NIT.   |
| 27 | SECTION:VI- 3.3 | 437 | DESIGN PHILOSOPHY – ELECTRICAL             | 9.4.1.4 All HV, MV & LV Switchboards shall be LOTO compliance.  | Kindly elaborate the LOTO compliance means.  | Lock Out Tag Out safety provision.  |

|    |                  |     |  |   |   |   |
|----|------------------|-----|--|---|---|---|
| 28 | SECTION:VI- 3.3  | 441 | DESIGN PHILOSOPHY – ELECTRICAL               | 9.4.1.61 All the HV/LV switchgear shall be fed through two separate transformers, each transformer having capability to take care of 100% load of the associated switchgear and shall have the facility of auto changeover in case of failure of one transformer as well as option of manual changeover for maintenance purpose.  | Generally Changeovers are applicable for Power Transformers only and not for Distribution transformer. So please check once again and confirm.  | As per NIT.   |
| 29 | SECTION:VI- 3.3  | 463 | DESIGN PHILOSOPHY – ELECTRICAL               | 11.3.5 In Coal / Petcock / Limestone Storage Area only, High Masts shall be provided.   | Please Mention the High Masts Quantity and its locations.   | Average Illumination level as per NIT shall be complied. Nos. of High Masts shall be finalized during detail engineering.   |
| 30 | SECTION:VI- 3.3  | 501 | POWER TRANSFORMERS                           | 5.9.1 On-Load Tap-Changing Mechanism (O.L.T.C.)   | Generally OLTC is provided for Power Transformers and OLDC for distribution transformers. Please check and Confirm  | Offload tap changer shall be provided.  |
| 31 | SECTION:VI- 3.3  | 591 | POWER TRANSFORMERS                           | 5.13 The starting current of 415 V Motors shall not exceed the values indicated in IS: 12615. Also there shall be no further positive tolerance on the values of starting current.  | We are considering all LT Motors as per IS12615 and starting current will be consider as per IS 12615 Subject to tolerance. Please confirm  | As per NIT.   |
| 32 | SECTION:VI- 3.3  | 671 | HIGH VOLTAGE VARIABLE FREQUENCY DRIVE SYSTEM | 5.5.1 Motors shall be provided with Resistance Temperature Detectors (RTDs).  | Please confirm whether it is applicable for all Rating Motors or Any range of Montors.  | Applicable for all HT Rating Motors   |
| 33 | SECTION:VI- 3.3  | 684 | HIGH VOLTAGE VARIABLE FREQUENCY DRIVE SYSTEM | 5.3.4 The sheet steel used for the panel shall be of minimum 2 mm CRCA except the doors & covers that may be made of 2mm CRCA. The panel shall be suitable for indoor installation, if not otherwise specified. The panel shall be free standing with degree of enclosure protection as IP-31. Maximum and minimum operating height shall be 1900 mm and 300 mm respectively. | Normally Panel supplier providing 2mm thick for main board and 1.6mm for doors,3mm for gland plate. Please confirm.   | As per NIT.   |
| 34 | SECTION VI- 10.0 | 356 | VENDOR LIST                                  | Wagon tripler & Paddle Feeder   | Kindly include additional make for Wagon feeder - Metso, Beumer India etc Paddle Feeder - Amund, Beumer India, FAMUR etc  | All proposed additional sub-vendors shall have proven track record/credential and shall be subjected to owner's / consultant approval during detail engineering.  |
| 35 |                  | 430 | Material Flow Diagram                        | As per your flow Chart DE System as applicable for Wagon Tippler & Track Hopper Complex   | Dust Extraction System is Not applicable since Dust suppression system shall be provided for suppressing dust from wagon tippler complex/plant (All discharge/ receiving points of conveyor system, hoppers & other dust generating sources) including track hopper building. Only. Please confirm. | Dry Fog Dust Suppression system shall be provided by bidder for suppressing dust from Wagon tippler complex, Track Hopper complex, all discharge / receiving points of conveyors , hoppers & other dust generating points etc.<br><b>Amendment shall be issued.</b> |
| 36 |                  | 430 | Material Flow Diagram                        | As per your flow Chart DW, DS, VS & SW consider at Pent House location  | Normally DS, DW & SW provided at transfer Points Only. So these system are not applicable. Please Confirm   | Confirmed.<br><b>Amendment shall be issued</b>  |
| 37 |                  | 430 | Material Flow Diagram                        | As per your flow Chart DW, DS & SW consider at Existing tower (TT-2)  | DS & SW are provided at our conveyor headend Platform only and DW System are Not applicable for this system, Since DW is already available this Tower. Please Confirm   | Bidder to provide DS & SW at your scope 's conveyor headend platform only in Existing tower TT-2.   |
| 38 |                  | 431 | Conveyor Layout Plot Plan                    | Existing OUSS (Offsite & Utility Sub-Station)   | We are Not finding the location of this item. Please Confirm.   | Please refer plot plan for OUSS location.   |
| 39 |                  | 438 | P& I Drawing                                 | As per your P&I Drawing Cooling Water Circuit is mention  | Cooling water is Not applicable since all equipment's are Air Cooled Only. Please confirm.  | Confirmed.  |
| 40 |                  | 438 | P& I Drawing                                 | As per Your P&I drawing Dry Fog system to be consider for Wagon Tippler rea, Track Hopper Area and Tranfer Points   | Normally Plain water system Provided for Track Hoppers, so please check and confirm.  | Dry Fog DS system to be provided for Wagon Tippler area, Track Hopper Area and all Tranfer Points.  |
| 41 |                  | 438 | P& I Drawing                                 | As per your P&I Drawing Plain Water Dust suppression to be consider Pheriphery of wagin Tippler area  | Genarllay Plain Water DSS provided at Track Hopper area and Dry Fog DSS provided at Wagin Tippler area. Please check and coinfirm.  | Dry Fog DS system to be provided for Wagon Tippler area, Track Hopper Area and all Tranfer Points.  |
| 42 |                  | 438 | P& I Drawing                                 | Feed Water Pumps for PF DS system and Plain water Dust suppression system for Paddle Feeders  | We feel that these two Drawings to be connected in your P&I drawing, please cross check and confirm.  | Bidder query not clear.   |
| 43 |                  | 438 | P& I Drawing                                 | PW System   | Generally Service water used for Toilets not PW system. Please cross chekch and confirm.  | bidder to confirm quality of service water and Plain water.   |

|    |  |                |                        |  |   |  |
|----|--|----------------|------------------------|--|---|--|
| 44 |  | 431 - 438      | P& I Drawing           | Drawings   | Request you to kindly provide us the Autocad Drawings for the same.   | Autocad drawings to be provided during detailed engineering to successful bidder.  |
| 45 | SECTION VI- 2.0                                  | 11 of 746      | Clause no-1, (iii)     | Following raw material & utility piping lines shall be made available to the contractor/bidder at One point of battery limit.  | We presume that water at required pressure will be made available by the client at terminal point.  | Client will avail the water at bidder battery limit.   |
| 46 | PC0183/4009/SecV I/1.0                           | Sheet 17 of 33 | Clause no-10.1.11      | DE-Dusting system, Bidder to consider following Dust Extraction system :- Dry fog Dust suppression system shall be provided for suppressing dust from wagon tippler complex/plant (All discharge/receiving points of conveyor system, hoppers & other dustgenerating sources) including track hopper building. | As per the specification description is asking for DE system but the detail specification is for dry fog dust suppression system.<br>Also Dry fog dust suppression system is not applicable for Lime Stone handling system.<br>Please clarify   | As you know limestone, coal and pet coke will be handled through the common conveyors and handled lime stone size is -200mm.therefore DFDS is recommended.             |
| 47 | PC0183/4009/SecV I/1.0                           | Sheet 17 of 33 | Clause no-10.1.15, (f) | Wagon unloading Operation at track hopper building: Unloading is done automatically from the bottom through Pneumatic Door Operating Mechanism activated by rail Side Devices  | Kindly confirm bidder' scope related to pneumatic door opening mechanism for bottom and side discharge wagons at track hopper   | Yes it is confirmed that the pneumatic door opening mechanism for bottom and side discharge wagons at track hopper will be in bidder's scope.                          |
| 48 | PC0183/4009/Sec VI/3.1.1                         | Sheet 8 of 33  | Clause No-8.01-(i)     | Gratings over wagon tippler hopper shall be placed and designed accordingly  | i) We understood that apart from wagon tippler hopper grating shall also be provided on track hopper and the same will be in bidder's scope. Kindly confirm   | i) Confirmed.  |
|    |  |                |                        |  | ii) Proposed system is conveying three types of material (Coal/Coke/Lime stone). Coal is having 100mm size, Pet Coke having 30mm size and LS having 200mm size. Kindly advise what will be the opening size of grating  | ii)It is confirmed that coal size is -100mm,lime stone size is -200mm and pet coke size is -30mm.Bidder should design the grating as per the highest lump size -200mm. |
| 49 | DATA SHEET: WAGON TIPPLER, DOCUMENT NO-PC0183    | Page-54 of 746 | -                      |  | Details specification and constructional detail of wagon tippler not available in the data sheet nor in the specification. Kindly furnish those details for selection of equipment  | Detailed specification to be provided by bidder with bid.  |
| 50 | DATA SHEET: Side Arm Charger, DOCUMENT NO-PC0183 | Page-55 of 746 |                        |  | Details specification and constructional detail of SAC not available in the data sheet nor in the specification. Kindly furnish those details for selection of equipment  | Detailed specification to be provided by bidder with bid.  |
| 51 | DATA SHEET: Apron Feeder, DOCUMENT NO-PC0183     | Page-56 of 746 |                        |  | Details specification and constructional detail of apron feeder not available in the data sheet nor in the specification. Kindly furnish those details for selection of equipment   | Detailed specification to be provided by bidder with bid.  |
| 52 | DATA SHEET: Paddle Feeder, DOCUMENT NO-PC0183    | Page-57 of 746 |                        |  | Details specification and constructional detail of paddle feeder not available in the data sheet nor in the specification. Kindly furnish those details for selection of equipment  | Detailed specification to be provided by bidder with bid.  |
| 53 | PC0183/4009/Sec VI/3.1.1                         | 3 OF 39        |                        | SUB-VENDOR LIST FOR APRON FEEDER, PADDLE FEEDER, SIDE ARM CHARGER AND WAGON TIPPLER MACHINE  | For those major equipments there are four approved sub-vendors namely-FLS, Thyssenkrupp, TENOVA and ELECON.<br>For last few years ELECON is non-responsive for any equipment related enquiry.<br><br>Since ThyssenKrupp is directly bidding for this package they may not quote other bidders for the equipment or else they may quote a high price.<br>From TENOVA we are yet to receive their confirmationwhether they will quote and not.<br><br>As such FLS is the only sub-vendor for major critical bought-out items. | All proposed additional sub-vendors shall have proven track record/credential and shall be subjected to owner's / consultant approval during detail engineering.       |

|    |   |                |               |   |  |   |
|----|---|----------------|---------------|---|--|---|
|    |   |                |               |   | As such condition we request you allow additional sub-vendor like L&T and METSO who are having all the product like Apron feeder, Wagon tippler, Paddle Feeder and Side Arm Charger in their manufacturing range. They are having references of lots of installation for similar type machines. If require we can submit necessary credential for your approval.                                 |   |
| 54 | PC0183/4009/Sec VI/3.1.1  | Page-13 of 33  | SI No (xliii) | The inclination of conveyors inside the tunnel shall be limited to 10 degree...The conveyor shall be horizontal at the feed point as far as possible. In case the same is not possible, the inclination at the feed point shall be limited to 6 degree.   | Refer to the GA drawing of conveyor 3A/B (Drg No-PC0183-1411-0003) throughout the length conveyor inclination is given 12 degree. Now if we follow the specification as mentioned in the referred clause then length of conveyor as well as tunnel portion will get increased. Kindly advise   | Clause No. xliii, Page no.-13 of 33 shall be modified. <b>Amendment shall be issued.</b>  |
| 55 | Drg no-PC0183-1411-0002, Drg no-PC0183-1400-0002 & Equipment data sheet for wagon tippler |                |               | Type of wagon tippler.  | The wagon tippler arrangement shown in the drawing is rotary type wagon tippler. For rotary type wagon tipplers, beetle charger is required for wagon pulling. In the data sheet side arm charger is requested for wagon positioning. For side arm charger rota side/crescent type side discharge wagon tipplers are required. Please clarify the exact requirement as per layout point of view. | As Per NIT.   |
| 56 | DATA SHEET: SIDE ARM CHARGER  | 55 of 746      |               | Service : - Wagon positioning at the Wagon tippler for unloading of materials. Pushing /pulling a rake of 58 wagons and TWO LOCO ENGINE   | Normally the SAC are allowed to pull 59 loaded wagons only. Please clarify   | It is confirmed that SAC is allowed to pull 59 loaded wagons only. <b>Amendment shall be issued.</b>  |
| 57 |   |                |               |   | Please share Railway track layout which covers track slope & curvature details   | It will be shared in DED stage.   |
| 58 | DATA SHEET: APRON FEEDER  | 56 of 746      |               | Apron feeder speed - 2.5 m/sec.   | Apron feeder speed is limited to 0.4 to 0.45 m/sec only.   | Bidder to select speed of apron feeder as per design capacity of Apron feeder i.e. 1500 tph. For Speed, <b>Amendment shall be issued.</b>   |
| 59 | Section VI  | 2 of 746       | 3.1.2         | Design Specification - Rotating Equipment   | We understand that Rotating Equipment is not in bidder's scope. This tender is only for Material Handling System.  | Rotating Equipment is in Bidder's scope as per NIT.   |
| 60 | Section VI  | 3 of 746       | 3.1.3         | Design Specification - Static Equipment   | We understand that Static Equipment is not in bidder's scope. This tender is only for Material Handling System.  | Static Equipment is in Bidder's scope as per NIT.   |
| 61 | Section VI - 1.0,   | 6 of 746       | 3, S.No. 6    | Conveyor belt system - Capacity : Rated - 1250 TPH. Design-1500TPH. Max. Belt Speed – 2.5m/s  | With max. Belt Speed 2.5m/s design capacity can not be achieved. Please clarify  | Max. Belt Speed – 3.0 m/s, <b>Amendment shall be issued.</b>  |
| 62 | Section VI - 1.0,   | Page 20 of 746 | 8.0.(i)       | Wagon tippler hopper shall have a loading capacity of minimum 3 wagons loads of Raw Material i.e. 180 T (Single hopper).  | We are considering Single Hopper with 180 T water filled capacity  | Wagon tippler hopper shall have a loading capacity of minimum 3 wagons loads of Raw Material i.e. 180 T (Single hopper) considering Coal Bulk density as 0.8 T/m3.  |
| 63 | Section VI - 1.0,   | Page 30 of 747 | 10.1.11       | DE-Dusting system Bidder to consider following Dust Extraction system:-<br>a) Dry fog Dust suppression system shall be provided for suppressing dust from wagon tippler complex/plant (All discharge/receiving points of conveyor system, hoppers & other dust generating sources) including track hopper building. | There is contradiction in this clause. Bidder to consider Dry type Dust Extraction System or Dry Fog type Dust Suppression System. We are considering Dry Fog type Dust Extraction System.   | Dry Fog Dust Suppression system shall be provided by bidder for suppressing dust from Wagon tippler complex, Track Hopper complex, all discharge / receiving points of conveyors, hoppers & other dust generating points etc. <b>Amendment shall be issued.</b> |
| 64 | Section VI - 1.0,   | Page 31 of 748 | 10.1.12       | EOT crane shall be provided for maintenance of wagon tippler.   | Capacity of EOT Crane is not mentioned in the NIT. We propose 10t electric hoist to cater the maintenance of Wagon Tippler.  | Refer Machinery Section   |
| 65 | Tech NIT 4of4   | -              | -             | Qty of Sump Pump shown in the table of Flow Diagram (Drg. No. PC0183-1400-0001) drawing is 6 nos. but in the drawing there are 18 nos. Sump Pump Shown  | We are considering 16 Nos. Sump Pump as following :-<br>- Wagon Tippler Complex - 2 Nos. (1W=1S)<br>- Track Hopper Complex - 8 Nos. (4W+4S)<br>- TP-1 - 2 Nos. (1W=1S)<br>- TP-2 - 2 Nos. (1W=1S)<br>- TP-3 - 2 Nos. (1W=1S)   | OK.   |

|    |                          |                     |   |   |  |  |
|----|--------------------------|---------------------|---|---|--|--|
| 66 | Tech NIT 4of4            | -                   | -                                       | In Flow Diagram (Drg. No. PC0183-1400-0001) there is Suspended Magnet on Conveyor No. BC-1A/1B & BC-2A/2B and ILMS on Conveyor No. BC-6A/6B but in profile drawing (Drg. No. PC0183-1411-001 to 003) there is no Suspended Magnet on Conveyor No. BC-1A/1B and there is ILMS on Conveyor No. BC-2A/2B & BC-3A/3B. | As per the scheme we propose ILMS on conveyor No. BC-3A/3B & BC-6A/6B.   | OK.  |
| 67 | PC0183/4009/Sec VI/3.1.1 | Page no. 24 of 746  | 10.1.1 Conveyors System                 | The skirt boards and sealing with overlapping block design shall be provided with labyrinth seals.  | We recommend skirt sealing shall be with rubber, with a self locking clamp plate as a sealing arrangement  | As per NIT.  |
| 68 | PC0183/4009/Sec VI/3.1.1 | Page no. 25 of 746  | 10.1.1 Conveyors System                 | Head/ Drive Pulley shall be 800mm outer diameter and Tail Pulley, Take-up pulley, Snub Pulley and Bend Pulley shall be 630mm outer diameter   | As per IS 8531, we suggest to optimize the pulley dia based on belt rating   | As per NIT.  |
| 69 | PC0183/4009/Sec VI/3.1.1 | Page no. 25 of 746  | 10.1.1 Conveyors System                 | Tail Pulley, Take-up pulley, Snub Pulley and Bend Pulley shall be lagged with 12mm thick Plain Rubber   | As per standard practice, we suggest 10mm thk plain lagging for Tail , Take-up , Snub and Bend Pulley.   | As per NIT.  |
| 70 | PC0183/4009/Sec VI/3.1.1 | Page no. 26 of 746  | 10.1.1 Conveyors System                 | All Conveyor galleries shall be provided with dust sweeping chutes covered with removal chequered plates. There shall be one dust hopper for each walkway of gallery and the same shall be provided at the middle of walkway near trestle location  | Please mention the spacing of dust sweeping chute, we recommend a spacing of 90 mtr at an 4 legged trestles. Kindly Confirm  | ok. Confirmed.   |
| 71 | PC0183/4009/Sec VI/3.1.1 | Page no. 28 of 746  | 10.1.5 Pulleys and Shafts               | Shaft deflection shall be limited to 0.066% of bearing centres  | We recommend maximum shaft deflection as 0.15 % (5 minutes at the pulley end disc)   | As per NIT.  |
| 72 | PC0183/4009/Sec VI/3.1.1 | Page no. 28 of 746  | 10.1.5 Pulleys and Shafts               | Head/ Drive Pulley shall be 20 mm thick shell and Tail Pulley, Take-up pulley, Snub Pulley and Bend Pulley shall be 16 mm thick shell   | Based on the bending moment at rim, we suggest to optimize the shell thickness   | As per NIT.  |
| 73 | PC0183/4009/Sec VI/3.1.1 | Page no. 29 of 746  | 10.1.7 Bearings and Pillow Blocks       | All bearing, to be used in equipments/assemblies shall be fitted in Plummer block   | Idler bearing shall be mounted on roller housing, no plummer block for the same shall be provided  | ok. Confirmed.   |
| 74 | PC0183/4009/Sec VI/3.1.1 | Page no. 30 of 746  | 10.1.11 DE-Dusting system               | a) Dry fog dust suppression system shall be provided for suppressing dust from wagon tippler complex/plant  | As limestone being hydroscopic in nature, DFDS is not recommended. We request you to please suggest type of DE dusting system  | As the limestone size -200mm. DFDS system shall be used as per NIT. Due to DFDS system percentage % of moisture addition is 0.05%.                               |
| 75 | PC0183/4009/Sec VI/3.1.1 | Page no. 31 of 746  | 10.1.13 Safety Guards                   | Guards shall completely enclose moving parts so that physical contact with the moving parts can not be made with the guard in place   | We presume mesh guards for throughout the length of conveyor is not required. Kindly Confirm   | Confirmed.   |
| 76 | PC0183                   | Page no. 37 of 746  | DATA SHEET: BELT CONVEYOR               | Lagging: - Min. 25 mm thk. Rubber lagging for Impact idlers (plain pattern). Lagging in Guide roller to be provided   | We presume for SA Carrying and SA return guide rollers, lagging is not required. Kindly Confirm  | As per NIT.  |
| 77 | PC0183                   | Page no. 38 of 746  | DATA SHEET: BELT CONVEYOR               | Skirt Board<br>Material :- IS 2062<br>Length & Thickness: - min. 3m long & 6 mm thk   | For Skirt board we have considered 6mm thk sailhard / tiscral as a liner on side plates and 3mm thk MS as a top plate. Kindly Confirm  | Confirmed.   |
| 78 | PC0183/4009/Sec VI/3.1.1 | Page no. 18 of 746  | 3.0 EXTENT OF SUPPLY                    | Interface with coal/petcoke/limestone storage and feeding system to Gasifier  | Please provide GA drawing of transfer tower TT-02 and existing conveyor, so as we can consider proper interface with coal/petcoke/limestone storage and feeding system to Gasifier | ok.  |
| 79 | Dwg no. PC0183-1411-0006 | Page no. 437 of 439 |   | GA of conveyor BC-06A and BC-06B  |  | ok.  |
| 80 | PC0183/4009/Sec VI/10.0  | Page no. 368 of 439 | 14.8 INSTRUMENT AIR SUPPLY DISTRIBUTION | Instrument air shall be provided at one point at battery limit  | Since the Instrument air is supplied by owner at the battery limit, we have not considered any compressor. Kindly Confirm  | For DFDS system , Bidder to consider Compressor. Instrument air is Supplied by Owner at the battery limit.   |
| 81 | PC0183/4009/Sec VI/10.0  | Page no. 357 of 439 |   | SUB-VENDOR LIST / Paddle feeder   | We request Aumund as additional make for paddle feeder   | All proposed additional sub-vendors shall have proven track record/credential and shall be subjected to owner's / consultant approval during detail engineering. |
| 82 | PC0183/4009/Sec VI/10.0  | Page no. 414 of 439 |   | SUB-VENDOR LIST / Electric Actuator   | Kindly include Rotork-India, Auma- India and Limitork-India as additional make   | All proposed additional sub-vendors shall have proven track record/credential and shall be subjected to owner's / consultant approval during detail engineering. |
| 83 | Dwg no. PC0183-1400-0002 | Page no. 431 of 439 |   | Conveyor layout   | Please provide the layout in AutoCad Format  | To be provided during detail engineering to successful bidder.   |